Regulatory framework governing the management of Disused sealed Radioactive Sources

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CNESTEN Morocco

Plan

- National Aspect
  - National Regulation in Morocco
  - National Regulatory bodies
- International Aspect
- Introduction of JC and COC in Management of DSRS
- Draft Text

Aspect National

National Regulation in Morocco

Law n°005-71
12 october 1971

Decree 2-97-30
protection against ionizing radiation
28 october 1997

Decree 2-94-66
Inspection and control facilities
nuclear 7 december 1994

Decree 2-97-132
the use of ionizing radiation for medical purposes
28 october 1997

National Aspect

Law n° 005-71

Any private or public activity implying an exposure to ionising radiations and, notably, the production, the import, the manipulation, the use, the detention, the storage, and the elimination of natural or artificial radioactive substances is subjected to a regime of authorization or preliminary statement declaration.

National Aspect

Decree 2-97-30

Article 43: any discharge of radioactive substances into the environment at levels above the exemption limits are subject to prior authorization.

Article 48: The import, export, acquisition, manufacture, processing, storage, use and sale of radioactive substances or ionizing radiation sources are subjected to a licensing scheme.

Article 51: The request must include information on the status of applicants, the legal status of the establishment, competence of staff, proposed transactions, the technical characteristics of radioactive sources, as well as arrangements for the management radioactive waste and compliance with regulations on disposal

National Aspect

Decree 2-97-132

Requirements of a technical conditions for the use of ionizing radiation sources for medical and dental staff qualifications.

Article 15 : the removal of storage tanks for liquid effluents can intervene only if the activity concentration is less than 7 Bq per liter ... "

Article 16: stipulate the conditions of storage of radioactive waste awaiting collection. Storage area of at least 20m2, covered, fenced and marked statutorily

National Aspect

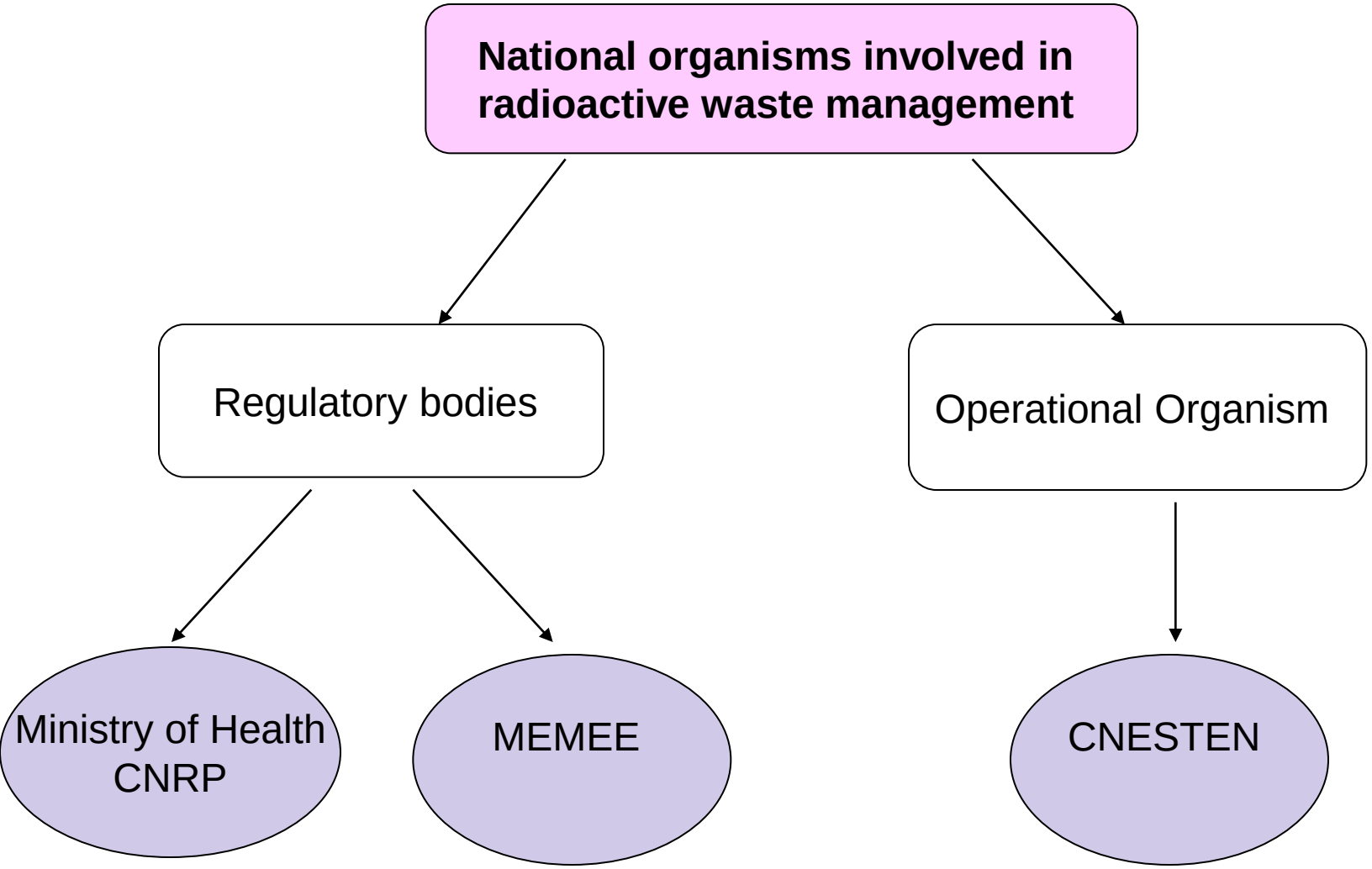
Decree 2-94-666

Provides the control and licensing of nuclear installations

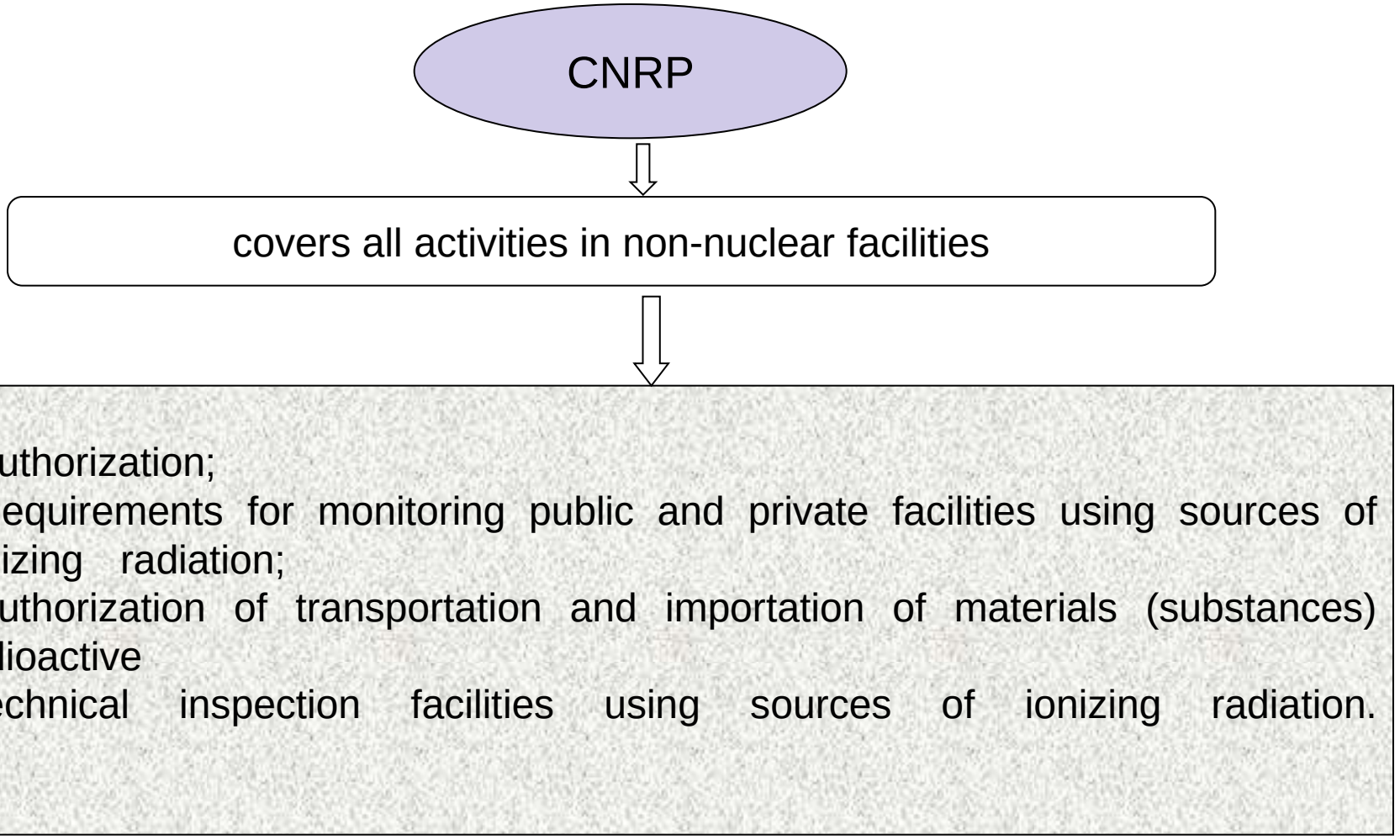
Article 4: is subject to authorization

- The construction of any nuclear facility
- the disposal of radioactive waste liquids or gases from the facility,
- Testing of commissioning,
- Operating Officer,
- the final shutdown

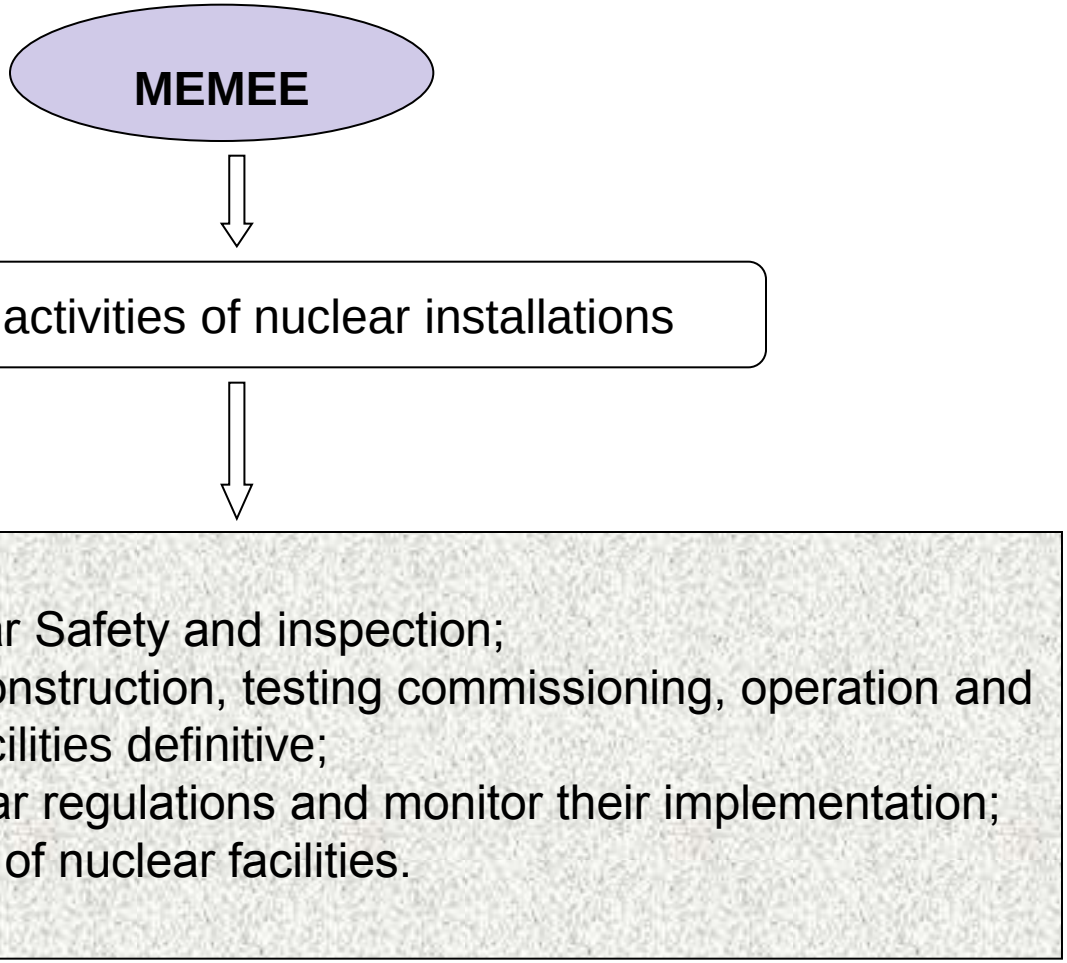
National Aspect



National Aspect



National Aspect



National Aspect

CNESTEN

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Responsible for the management of radioactive waste generated nationally

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- The collection, transport, packaging and storage of spent sealed sources, used in medical and industrial use…;
- Assistance in training and consultancy for the benefit of producers and holders of radioactive waste;
- Contribution to develop regulations on the subject;
- The establishment of operational resources required for the management of radioactive waste generated national level.

International Aspect

- **Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management :**

  Morocco is the first African country to have ratified the Joint Convention, May 13, 1999.

- **Code of Conduct on the Safety and Security of Radioactive Sources**

International Aspect

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

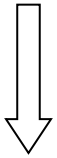
ARTICLE 28. DISUSED SEALED SOURCES

1. Each Contracting Party shall, in the framework of its national law, take the appropriate steps to ensure that the possession, remanufacturing or disposal of disused sealed sources takes place in a safe manner.

2. A Contracting Party shall allow for re-entry into its territory of disused sealed sources if, in the framework of its national law, it has accepted that they be returned to a manufacturer qualified to receive and possess the disused sealed sources.

International Aspect

Code of Conduct on the Safety and Security of Radioactive Sources

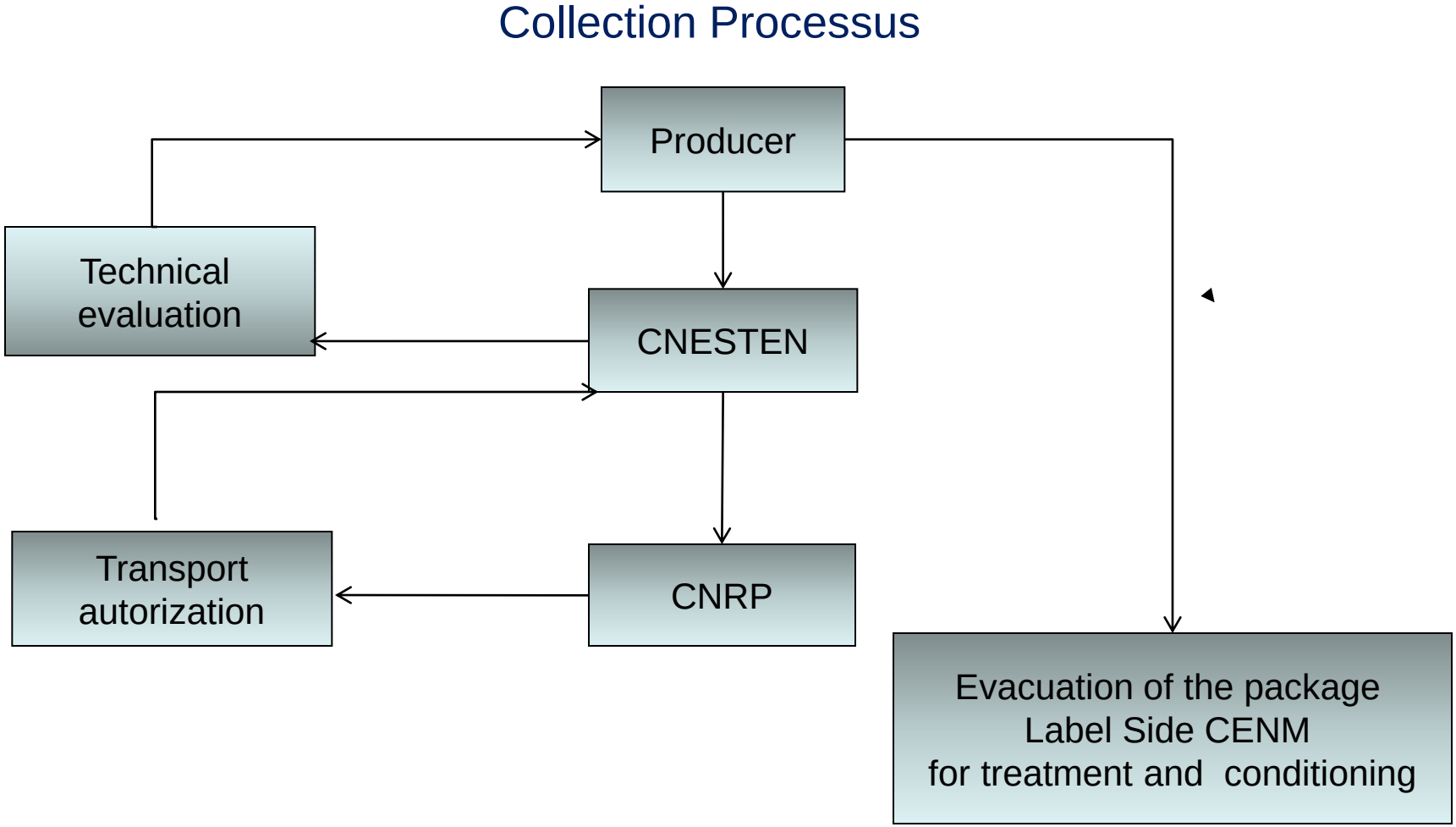


- Achieve and maintain a high level of safety and security of radioactive sources;
- Prevent unauthorized access or damage to, and loss, theft or unauthorized transfer of, radioactive sources, so as to reduce the likelihood of accidental harmful exposure to such sources or the malicious use of such sources to cause harm to individuals, society or the environment; and
- mitigate or minimize the radiological consequences of any accident or malicious act involving a radioactive source.

Introduction of the JC and COC in the management of DSRS

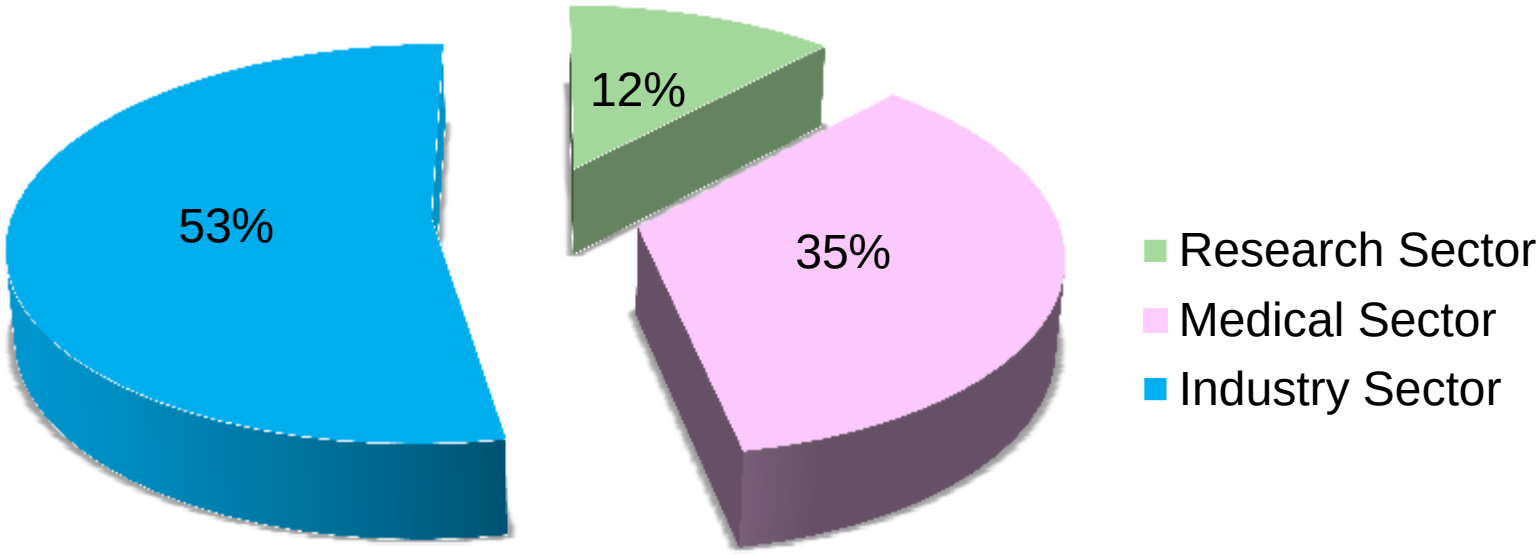
- Since 1971, there is a law in Morocco, law 005-71, according to which any private or public activity implying an exposure to ionising radiations and, notably, the production, the import, the manipulation, the use, the detention, the storage, and the elimination of natural or artificial radioactive substances is subjected to a regime of authorization or preliminary statement declaration.
- Morocco has a radioactive waste system dealing with the LILW equipped with the necessary equipments and infrastructure capable of treating and storing radioactive waste.
- The DSRS collected by CNESTEN, are stored waiting their treatment in its installation located in Maamora nuclear center.
- Polluter-Payer Principle

Introduction of the JC and COC in the management of DSRS



Introduction of the JC and COC in the management of DSRS

- Origin of Disused Selead Radioactive Sources

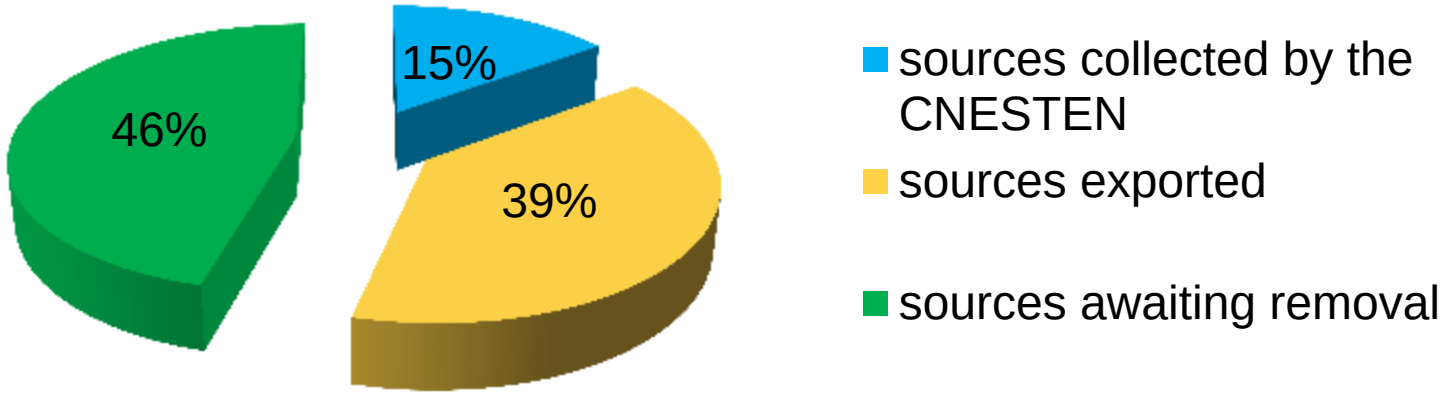


Introduction of the JC and COC in the management of DSRS

When the source becomes disused there are two options:

- Returning the disused source to the supplier
- Or transferring the disused source to the central waste management facility (CNESTEN)

In case of orphan sources, the regulatory body takes control of the sources to ensure it safe storage and find the owner if possible. Orphan sources, whose owner can't be identified, are transferred to CNESTEN for its management



Introduction of the JC and COC in the management of DSRS

Internal emergency preparedness in CENM (Nuclear centre of Maamora)

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The CNESTEN is required by law to submit an emergency plan for each nuclear installation in the Nuclear Center of Maamora, where the CNESTEN mentions the actions undertaking for the prevention of incidents and/or accidents that can be occurred in the nuclear.

The internal emergency plan describes all the arrangements taken by the Direction of CENM, in case of crisis, radiological or toxic emergency situation:

- To preserve the safety of the installation and to limit the consequences of the accident by implementing the emergency procedures
- To protect personnel, surrounding population and the environment by limiting and control the release and adopting the necessary radiation protection measures
- To give the first aid to the injured persons
- To inform the competent authorities in order to take the necessary dispositions as well as the media

Draft Text

A draft law on the safety and security of nuclear and radiological includes all regulations: Management of Radioactive Waste, Transport and Radiation

Draft Text

The main tasks of this law are:

- Institution of one unique and independent regulatory body dealing with nuclear and radiological safety
- Treatment of all aspects relative to nuclear and radiological activities:
  - Nuclear safety
  - Radiation protection
  - Authorisation and declaration procedures
  - Radioactive waste management
  - Transport of radioactive materials
  - Physical protection of nuclear facilities and nuclear matters
  - Non proliferation warranties
  - Administrative and penal sanctions
  - National network for monitoring of radioactivity in environment
  - Obligation of maintenance and quality control of all devices emitting ionisations radiations.
  - Training in radiation protection field.

Thanks for your attention